

**Petra Beckmann  
Gerhard Engelbrech  
(Hrsg.)**

# **Arbeitsmarkt für Frauen 2000 – Ein Schritt vor oder ein Schritt zurück?**

**Kompendium zur Erwerbstätigkeit von Frauen**



**BeitrAB 179**

Institut für Arbeitsmarkt-  
und Berufsforschung der  
Bundesanstalt für Arbeit

**Beiträge zur  
Arbeitsmarkt- und Berufsforschung**

A very faint, large watermark-like image of a classical building with four columns and a triangular pediment occupies the background of the page.

Digitized by the Internet Archive  
in 2016

<https://archive.org/details/relativeattracti00myra>

**Petra Beckmann  
Gerhard Engelbrech  
(Hrsg.)**

# **Arbeitsmarkt für Frauen 2000 – Ein Schritt vor oder ein Schritt zurück?**

**Kompendium zur Erwerbstätigkeit von Frauen**



**BeitrAB 179**

Institut für Arbeitsmarkt-  
und Berufsforschung der  
Bundesanstalt für Arbeit  
Nürnberg 1994

**Beiträge zur  
Arbeitsmarkt- und Berufsforschung**

# **Beiträge zur Arbeitsmarkt- und Berufsforschung**

## **Arbeitsmarkt und Berufsforschung in Deutschland und international**

*Herausgeber der Reihe BeitrAB*

Institut für Arbeitsmarkt- und Berufsforschung der Bundesanstalt für Arbeit (IAB), Regensburger Straße 104, 90478 Nürnberg , Telefon (09 11) 17 90.

*Redaktion*

Erika Härtig, Ursula Wagner, Institut für Arbeitsmarkt- und Berufsforschung der Bundesanstalt für Arbeit, 90327 Nürnberg, Telefon (09 11) 1 79 30 17, 1 79 30 23. Fernschreiber 6 22 48, Telefax (09 11) 1 79 32 58.

*Druck*

Druckhaus Bayreuth, Theodor-Schmidt-Straße 17, 95448 Bayreuth

*Bezugsmöglichkeit*

Bestellungen sind an das Landesarbeitsamt Nordbayern, Geschäftsstelle für Veröffentlichungen, 90328 Nürnberg , Telefon (09 11) 1 79 41 62/63 zu richten. Schutzgebühr: 25,- DM.

*Rechte*

Nachdruck – auch auszugsweise – nur mit Genehmigung des IAB und unter genauer Quellenangabe gestattet.

In den „Beiträgen zur Arbeitsmarkt- und Berufsforschung“ werden umfangreiche Einzelarbeiten aus dem IAB oder im Auftrag des IAB durchgeführte Untersuchungen veröffentlicht. Beiträge, die mit dem Namen des Verfassers gekennzeichnet sind, geben nicht unbedingt die Meinung des IAB bzw. der Bundesanstalt für Arbeit wieder.

ISSN 0173-6574

# Inhalt

Vorwort	Seite
<i>Gerhard Engelbrech, Petra Beckmann</i> Förderung von Frauen im Beruf im Kontext theoretischer Konzepte und aktueller empirischer Ergebnisse	7
<b>1. Tendenzen der Frauenbeschäftigung: Quantitative Entwicklung und strukturelle Rahmenbedingungen</b>	
<i>Wolfgang Klauder</i> Tendenzen und Bedeutung der Frauenerwerbstätigkeit heute und morgen	45
<i>Erika Schulz, Ellen Kirner</i> Arbeitskräfteangebot von Frauen in Deutschland bis zum Jahr 2010. Empirische Ergebnisse und Ansätze zu einer kohortenspezifischen Projektion	73
<i>Barbara F. Reskin</i> Sex Segregation: Explaining Stability and Change in the Sex Composition of Work	97
<i>Myra H. Strober, Lisa M. Catanzarite</i> The Relative Attractiveness Theory of Occupational Segregation by Gender	116
<i>Elke Holst, Jürgen Schupp</i> Perspektiven der Erwerbsbeteiligung von Frauen im vereinten Deutschland	140
<b>2. Berufsverläufe, Barrieren und Chancen für Frauen in den alten Bundesländern</b>	
<i>Wolfgang Lauterbach, Johannes Huinink, Rolf Becker</i> Erwerbsbeteiligung und Berufschancen von Frauen. Theoretische Ansätze, methodische Verfahren und empirische Ergebnisse aus der Lebensverlaufsperspektive	175
<i>Claudia Born</i> Beruf und weiblicher Lebenslauf. Plädoyer für einen Perspektivenwechsel in der Betrachtung der Frauenerwerbsarbeit	209

<i>Gisela Notz</i>	
Frauen zwischen Arbeitsmarkt und Hauswirtschaft. Zum Verhältnis von Berufsorientierung, Kontinuitäten und Brüchen von Berufsverläufen von Frauen in den alten Bundesländern	229
<i>Herwig Birg, Jürgen Flöthmann</i>	
Erwerbsorientierung und Lebenslauf von jungen Frauen in unterschiedlichen regionalen Lebenswelten	253
<i>Anita B. Pfaff, Susanne Busch</i>	
Sind Arbeitnehmerinnen schlechtere Gesundheitsrisiken als Arbeitnehmer? Ursachen für die Benachteiligung von Frauen am Arbeitsmarkt	281
<i>Christiane Schiersmann</i>	
Führungspositionen - vom männlichen Privileg zur weiblichen Domäne?	306
<i>Margarete Landenberger, Karin Lohr</i>	
Frauen in Pflegeberufen - eine Beschäftigtengruppe auf dem Weg zu einem eigenständigen Berufsfeld und zu aktiver Mitgestaltung der Qualität der Gesundheitsversorgung	319
<i>Barbara Dippelhofer-Stiem</i>	
Technikbezogene Einstellungen, antizipierte Anforderungen und Weiterbildungswünsche von Frauen im Schreiddienst	354
<i>Heike Jacobsen</i>	
Frauenerwerbsarbeit im Strukturwandel des Ruhrgebietes	370
<i>Paul B. Hill, Johannes Kopp</i>	
Frauenerwerbstätigkeit und Ehescheidung	398
<b>3. Die Situation der Frauenerwerbstätigkeit in den neuen Bundesländern</b>	
<i>Petra Beckmann, Gerhard Engelbrech</i>	
Frauenerwerbstätigkeit in den neuen Bundesländern - Erwerbsneigung, Erwerbsbeteiligung und Arbeitslosigkeit	423
<i>Sabine Schenk, Heike Solga</i>	
Geschlechtsspezifische Personalstrategien von Treuhandunternehmen - Ergebnisse einer linearen Regressionsanalyse	446
<i>Christina Felber, Krisha Monté, Sabine Röhl</i>	
Zur Situation von Wissenschaftlerinnen im Transformationsprozeß der Uni-	

versitäten und Hochschulen in (Ost-)Berlin und im Land Brandenburg.  
Ein Vergleich mit der Situation des männlichen Wissenschaftspersonals

495

*Karen Schober*

Junge Frauen beim Übergang vom Bildungs- ins Beschäftigungssystem: die  
Lage in den neuen Bundesländern

523

*Ellen Sessar-Karpp, Elke Harder*

Erwerbstätigkeit, Arbeitslosigkeit und Weiterbildung von Frauen in den  
neuen Bundesländern

567

*Sabine Nowossadeck*

Paradigmenwechsel beim Rollenverständnis ostdeutscher Frauen? Eine  
Auswertung empirischer Untersuchungen

615

*Ursula Beer, Ursula Müller*

Sich-Zurechtfinden in einer neuen Realität: Barrieren und Potentiale

628

*Barbara Bertram, Birgit Bülow*

"Wir sind auf den ganzen Menschen aus und können ihn nicht finden" -  
Bedingungen von Lebensentwürfen bei Frauen in den neuen Bundesländern

646

*Michael Braun*

Entwicklung der Einstellungen zur Rolle der Frau nach der Vereinigung

670

#### **4. Frauenerwerbstätigkeit im internationalen Vergleich**

*Susanne Schunter-Kleemann*

Frauenbeschäftigung und europäische Strukturpolitik

685

*Elisabeth Beck-Gernsheim*

Mobilitätsleistungen und Mobilitätsbarrieren von Frauen. Perspektiven der  
Arbeitsmarktentwicklung im neuen Europa

712

*Birgit Pfau-Effinger*

Sozio-kulturelle Grundlagen der Entwicklung der Teilzeitarbeit in Europa -  
Das Beispiel Finnland und Westdeutschland

727

*Maria Hofstätter*

Frauen in Beruf und Arbeitswelt. Bildungswege und Erwerbstätigkeit der  
Frauen in Österreich

751

## **5. Möglichkeiten und Grenzen der Frauenförderung in der Arbeitswelt**

*Hedwig Rudolph, Marlies Grüning*

Frauenförderung: Kampf- oder Konsensstrategie?

773

*Gerhard Bäcker, Brigitte Stoltz-Willig*

Optionale Arbeitszeitverkürzung und -gestaltung und Defizite sozialer Sicherung

796

*Helga Herrmann*

Unternehmerische Konzepte zur Vereinbarkeit von Beruf und Familie. Ergebnisse aus einer empirischen Untersuchung

812

*Eva Brunlop, Ursula Hornung*

Betriebliche Frauenförderung - Aufbrechen von Arbeitsmarktbarrieren oder Verfestigung traditioneller Rollenmuster?

836

*Gerhard Engelbrech*

Die Wiedereingliederung von Frauen ins Berufsleben im Konflikt zwischen Humankapitaltheorie und vorsorglicher betrieblicher Personalpolitik

852

*Barbara Hille, Johanna Zierau*

Perspektiven von Mädchen und jungen Frauen im Spannungsfeld von Berufs- und Familienorientierung. Zur Anerkennung der Qualifikation durch Familientätigkeit in der Berufsbildung und Erwerbstätigkeit

876

*Carola Busch*

Frauen- und Familienpolitik als Bestandteil betrieblicher Personalentwicklung

906

*Anna Glade, Martina Kuhnt*

Regionalstrukturelle Rahmenbedingungen der Vereinbarkeit von Familie und Beruf. Zum Zusammenhang von Wohnstandort, Arbeitsstättenstandort, Arbeitsorganisation und betrieblicher Frauenförderung im Verbund von Klein- und Mittelbetrieben

923

*Iris Bednarz-Braun, Kirsten Bruhns*

Möglichkeiten und Grenzen einer arbeitnehmerinnenorientierten Frauenpolitik in der Kommune. Kooperationen zwischen GewerkschafterInnen und kommunalen Frauenbeauftragten

944

**Verzeichnis der Autorinnen und Autoren**

961



# The Relative Attractiveness Theory of Occupational Segregation by Gender

*Myra H. Strober and Lisa M. Catanzarite*

## Introduction

Occupational segregation by gender is a striking aspect of labor markets in all industrialized societies.<sup>1</sup> Men and women are not distributed across occupations in proportion to their representation in the labor force. Rather, the majority of women work in occupations that are filled largely by women while most men are in occupations that are almost entirely male.<sup>2</sup>

Occupational segregation by gender is deleterious with respect to both labor market efficiency and equity. By inhibiting people from working in occupations that match their skills and talents, occupational segregation lessens both potential economic output and individual satisfaction. Moreover, the system of segregation contributes to a differential in earnings between women and men which further distorts both efficiency and equity.<sup>3</sup>

For those interested in the effects of education on earnings, occupational segregation is an important process to understand. The existence of such segregation limits the degree to which equality of education translates into equality of earnings; it means that even when men and women receive the same education, they do not receive the same return on that education because women wind up in occupations that pay less than those held by their similarly educated male counterparts.<sup>4</sup>

The gender composition of the vast majority of occupations remains stable over long periods of time. In order to study the dynamics of occupational segregation, to learn how the *process* of gender segregation works, we have studied in some detail occupations whose gender designation has changed over time: elementary school teachers in the nineteenth century (Strober and Best, 1979; Strober and Tyack, 1980; Tyack and Strober, 1981; Strober and Lanford, 1986); banktellers (Strober and Arnold, 1987a); secretaries on the railroads (Strober and Gallagher, forthcoming); and assembly operatives in Mexican world market factories (maquiladoras) (Catanzarite and Strober, forthcoming).

This paper discusses the theory of occupational segregation by gender that has emerged from both our empirical work (cited above) and from our earlier theoretical formulations (Strober, 1984; Strober and Arnold, 1987a; Strober, 1988; Catanzarite and Strober, 1988; Strober and Catanzarite, 1989; Catanzarite, 1990). The theory is motivated by five questions about the processes of occupational segregation.

1. How is it decided which gender will predominate in particular occupations?
2. What forces keep the gender composition of occupations stable?
3. How and why do occupations change their gender designation?
4. What happens to the relative pay and status of occupations when they change their gender composition?
5. What is likely to happen in the future to the *system* of gender segregation?

Unlike other theories that emphasize either supply or demand in explaining occupational segregation, the theory proposed here rests on both. The determination of the gender composition of an occupation depends upon employer behavior (the demand side of the labor market) and also upon the behavior of workers (the supply side of the market).

In brief, the argument is as follows. The factors that affect demand and supply in the labor market are embedded in societal power relations that include male dominance. Because of these power relationships, women and men have unequal access to occupations. In particular, unequal power relations in the society at large are reflected in the labor market by employers' preference for white male workers in "relatively attractive" occupations (to be defined below). This is not to say that any white man can find employment in any occupation he fancies; job offers depend not only on race and gender, but also on having the requisite skill to perform the job (or at least the requisite educational credential to be trained to perform the job) and may also depend upon age and other factors such as social class.

Given employer preferences, white men choose to inhabit those occupations that are most attractive to them, leaving the occupations that they find less attractive available for the other race-gender groups. Minorities and white women, like white men, attempt to maximize their "utility," but their occupational choices are constrained by employers' preferences for white men in the most attractive occupations.

The metaphor of queues is useful for understanding the processes of occupational segregation (see Catanzarite and Strober, 1989 for a comparison of the ideas discussed here with other queuing models of occupational composition; also see Reskin and Roos, 1990).<sup>5</sup> In this metaphor, the labor market is the meeting ground for two queues: a labor queue with white men at the front of the line and an occupation queue in which occupations are arrayed in order of their attractiveness to white men.

The theory is meant to apply widely, wherever male dominance exists, across all industrialized societies and in the modernized sectors of industrializing societies.

Legal mandates for equal employment opportunity and affirmative action have the potential to significantly affect the processes of segregation, but because of the weak enforcement of these laws and orders, the mechanisms elucidated here are only slightly changed by current legal mandates. Historical examples for the U.S. refer to the pre-1963 period; the implications of post-1963 legal mandates for the operation of gender segregation are also discussed.

## How the gender-type of particular occupations decided?

Given that women have lower reservation wages than white men (that is, they are willing to work at a lower wage rate)<sup>6</sup>, one might expect that profit-maximizing employers would be eager to hire them for any new occupation that comes onto the market.<sup>7</sup> Yet, employers often hire white men for new occupations, despite the relative "cheapness" of female and minority male labor. Why is this so?

Neoclassical economics proposes four answers to this question. The first is that women are not available for these occupations because they have not been appropriately trained for them.<sup>8</sup> The second is that even if women and minorities are available and trained, they are less productive than white men in these occupations and the existing gender and race earnings differentials are not large enough to compensate for the differential in productivity.<sup>9</sup> The third answer, from statistical discrimination theory (Phelps, 1972), is that although particular women and minorities may exhibit productivity that is equivalent to that of white men, employers believe that on average women and minorities have lower productivity than men and whites, especially over the long term. Because these employers operate under cost pressure in an environment of uncertainty, they do not take the risk of hiring women or minorities in occupations where the potential employee's long-term productivity is critical.<sup>10</sup> The fourth answer is provided by Becker's (1957) theory of "taste" discrimination: that even if minorities and women have the same productivity as white men, the existing earnings differentials by race and gender are not large enough to compensate employers for the disutility they or their male or white employees or their customers feel when women or minorities are employed in certain occupations.<sup>11</sup>

If existing earnings differentials by race and gender are not large enough, why haven't some profit-maximizing employers made them larger? In an economy with competitive pressure among firms, why haven't some firms sought to increase profits by increasing wage differentials by gender and race until employing women and minorities at lower wages at least compensated (or indeed more than compensated) for any actual or perceived productivity differential or for the distaste for employing women or minorities in certain occupations?<sup>12</sup>

The neoclassical theory's notion that occupational segregation could be reduced by increasing race-gender earnings differentials disregards some important psychological realities.<sup>13</sup> One reason why occupational segregation is far more common than is occupational integration with a large gender or race earnings differential is because, for all parties concerned, occupational segregation is far more comfortable than are large intraoccupational pay disparities. For a man or majority worker, knowing that others are being paid a lower wage for doing exactly the same work engenders fear that one's own wage rate will be lowered and/or that one will lose one's job altogether once the employer realizes that the women or minority workers provide a "bargain" (see Hodge and Hodge, 1965; Bonacich, 1972 for theoretical formulations on intraoccupational wage competition). Becker's argument is that men or majority workers need to be paid a wage premium to work with women or minorities; it is our view that this argument is incorrect. It is unlikely that any wage premium within reason could compensate men or majority workers for the fear of having their own wage rate reduced or losing their job.

For women or minority workers, being paid a lower wage than others doing exactly the same work engenders both anger and low self-esteem; white women and minorities would probably not wish to work in occupations with large intraoccupational wage discrepancies if they had a choice of working in more egalitarian occupations. For their part, employers would seek to avoid a situation where some members of the workforce fear that their jobs are in jeopardy while others are angry, for such an environment is not conducive to long-term productivity.

Neither simplistic profit maximization, "taste" discrimination, nor their combination can explain why employers do not hire female or minority labor instead of white male labor even when all groups have equivalent productivity and white males have a higher reservation wage. Nor can it explain why profit-maximizing employers do not seek to further increase the race-gender earnings differentials in order to employ rather than exclude women and minority workers in particular occupations.

## Gender power relations

To understand gender segregation in the labor market, one must understand gender power relations in the society at large and in the family. The factors that affect demand and supply in the labor market are embedded in societal power relations. We define gender power relations as a set of practices, an ideology, and a set of feelings that enable men to have social, economic, and personal power over women and the services they provide.<sup>14</sup>

Gender power relations include a personal component that derives from the familial relations of women and men. The ideology and practice of gender relations within the family are that men (especially husbands) have power and authority over

women (especially wives) and their services. In return, men are to provide protection, including economic protection, for women and children.<sup>15</sup> Hence, women may derive some benefits even while they are dominated. However, these benefits are associated only with familial relationships; in the society at large, women do not benefit from the gender power relations.<sup>16</sup>

In an industrial society, the notion that men should provide economic protection for women never meant that women would be at leisure. While most women worked in the home, lower and middle class women often worked in the market as well. Normatively, however, men have been viewed as having *primary* responsibility for the economic support of the family. This norm led to the very powerful notion of a family wage in industrial societies (i.e. that a male worker should earn income sufficient to purchase market goods and services not only for himself, but also for his wife and children).

While the family wage was often more an ideal than a reality, it has had powerful effects in the labor market. Employers found it incumbent upon them to accord preference to men for relatively attractive jobs (so that they could best provide for their families); to offer women jobs that men wanted would have been a direct breach of power relations between men and women.

The theory argues that employers' hiring preferences are 22 determined not simply by profit maximization, but by an interaction of profit maximization and gender power relations. While a simple profit maximization model suggests that employers should offer new occupations to women first (since they are cheaper to hire than are white men), the addition of gender power relations to the model reverses employers' expected behavior. If employers think that white men will find a new occupation attractive, relative to other occupations that require similar education and experience, the employer will seek to hire white men into the new occupation, according them preference over other workers.

What occupational characteristics make an occupation attractive? And why do employers pay attention to societal norms about gender power relations when they do their hiring? The following two sections deal in turn with these questions.

### **Attractiveness of occupations**

There are four elements of occupational attractiveness, (See Strober and Catanzarite, 1989; all of which are relative to workers' human capital: (1) the monetary return on the workers' investments in human capital, which is the ratio of earnings plus the monetary value of fringe benefits to years of education and years of on-the-job training;<sup>17</sup> (2) the working conditions of the occupation, including autonomy, authority over other workers, use and development of skills, routinization, physical effort, exposure to hazards, pleasantness of job environment, and desirabi-

lity of working hours; (3) the degree of power and prestige or status that the occupation holds in the society at large; and (4) the potential for future rewards in the occupation, including its place in internal labor markets and hence its opportunities for promotion to more attractive jobs, the likelihood of the occupation becoming deskilled or technologically obsolete, and the likelihood of decline in the occupation's rate of return to the human capital of its incumbents.<sup>18</sup>

We underscore two points about our definition of occupational attractiveness. First, earnings level is not an element of attractiveness in and of itself. Rather, earnings are important relative to workers' investments in human capital. Thus, for example, the occupation stevedore is high in pecuniary attractiveness not because its absolute earnings are high, but because of the high ratio of its earnings relative to the (small) amount of human capital required for incumbents in the occupation (Strober and Catanzarite 1989).<sup>19</sup> Second, an occupation's attractiveness is defined in terms of its attractiveness to white men.<sup>20</sup>

### **Societal norms and employer behavior**

One can view the relationship between profit maximization and gender power relations in one of two ways. In the original formulation of a gender segregation theory, Strober (1984) argued that there is a tension between profit maximization and patriarchy and that male managers or employers were willing to trade off some profit opportunities to maintain male privilege. This notion is similar to Gary Becker's (1957) argument that employers are willing to pay a monetary cost to indulge their tastes for discrimination. More recently, however, Strober and Arnold (1987a) argued that profit maximization and offering men first choice of jobs are not at odds but rather are mutually reinforcing.

Profit maximization is not inconsistent with hiring practices that conform to norms of gender and racial power relations. In fact, not discriminating against women and minorities is costly to an employer, in part because the employer incurs the displeasure of existing dominant group workers and customers (Becker, 1957), but also because the employer incurs the displeasure of family, friends, neighbors and colleagues for breaking the strong norms of gender relations (Strober and Arnold 1987a) or race relations (Catanzarite and Strober, 1988).<sup>21</sup> Incurring this displeasure is costly to the employer not only in social life, but also because it can be translated into economic sanctions.

Because the costs of violating the norms of race or gender relations are high, sophisticated profit maximizers will take into account not only wage costs but all relevant costs, and will act in accordance with prevailing racial and gender norms by offering preference to white men for more attractive occupations. Indeed, offering women or minority men first choice of jobs that white men want is seen as disruptive of community good will and hence disruptive of long-term profit opportuni-

ties. There are costs to employers in declining to take advantage of women's and minorities' relative "cheapness," but, we think that, in general, such costs are seen by employers as smaller than the costs of violating gender and racial norms.<sup>22</sup>

### Matching the occupation queue with the labor queue

When a new job comes onto the market, employers determine education and skill requirements, working conditions, and the place of the job in the internal labor market hierarchy. Then, based on the existing wage structure of the firm and the wage rates for similar jobs in the relevant labor market, employers attach a wage offer and benefits package to the position. In other words, employers determine the attractiveness of the new occupation.<sup>23</sup>

In evaluating the attractiveness of this new occupation, white men compare it to the attractiveness of existing occupations that require a similar level of education. For each level of educational requirements, one can envision an array (or queue) of occupations ordered by degree of attractiveness to white men. The level of education required for an occupation and its attractiveness are determined by employers, but the arraying of the occupations is done by white men. Suppose that within a given education group the level of occupational attractiveness to white men of the new occupation in question is "x." White men working in occupations with similar education requirements, but ranked lower than x in attractiveness, will seek employment in the new occupation (as will white men with the requisite human capital who are entering the labor force). White men working in occupations requiring similar levels of education, but ranked higher than x in attractiveness, will not.

In order to offer preference to white men for relatively attractive occupations, employers must estimate the attractiveness of new occupations. They are not always successful in judging the attractiveness of new occupations or the levels of human capital required for new jobs. When employers miscalculate the relative attractiveness of an occupation, the occupation becomes "in contention." For example, employers may underestimate the attractiveness of a new occupation, thinking that it is less attractive to white men than other occupations requiring similar levels of human capital; employers then offer the job to some other gender-race group/s. However, upon recognizing the "true" attractiveness of the occupation, white men will express their interest in being hired, and employers will accord them preference. This is exactly what happened in the case of computer programmers. When the occupation first came onto the market, employers saw it as a clerical job with technical requirements; as a result, they hired women with mathematics backgrounds. However, it soon became clear that computer programming was much more than a technical clerical job, and white men moved into the occupation (Strober and Arnold 1987b).

Employers may also overestimate the relative attractiveness of a new occupation.<sup>24</sup> again placing the occupation into contention. In this case, employers accord preference to white men, but find that an insufficient number of white men are interested in the occupation. If very few white men apply, employers are likely to offer jobs in the occupation to other gender-race groups.<sup>25</sup> Another option is to upgrade the attractiveness package (e.g. raise wages) in order to attract white male workers. The latter is the option employers are likely to exercise if the enterprise is well-buffered from labor costs, white men already have been hired to fill most of the positions, and some vacancies remain. In this case, upgrading the attractiveness of the occupation is the best alternative, since white male workers prefer not to have subordinate group members in their occupations. (See the discussion of Becker (1957) above.) Finally, in the intermediate case, where some white men have taken jobs (perhaps 50 to 75% of initial slots), the employer might hire subordinate groups as well, and wait to see what the outcome of occupational contention would be, i.e. which group/s would come to dominate the occupation.<sup>26</sup>

## **What forces keep the gender of occupations stable?**

Once an occupation is designated as male or female it tends to retain that designation. For example, in a study of 409 detailed occupations over the period 1910-1930 Strober (forthcoming) found that only 2 percent of the occupations changed their gender designation over the period. Eighty-two percent maintained the same gender designation throughout the time period. The 82 percent was made up of three categories: 58 percent had a higher than expected proportion of men over the entire period (generally called male-dominated occupations), 16 percent had a higher than expected proportion of women (female-dominated occupations), and 8 percent had approximately the expected proportion of men and women (i.e., they were integrated). Sixteen percent of the occupations wavered between gender-integrated and gender-dominated designations.<sup>27</sup> For the more recent period, Jacobs (1989) has shown that the stability of occupations at the macro level exists even though individual women move back and forth among male-dominated, integrated, and female-dominated occupations.

Existing theories of occupational segregation are unable to satisfactorily explain the initial gender assignment of occupations or changes in the gender composition of occupations. However, theories of socialization and social control do rather well in explaining the stability of occupational gender designations. At the societal level, socialization of children and adolescents to appropriate "roles" ensures that rather few young men and women will choose to enter occupations or training programs that are gender-deviant. At the workplace, the gender-dominant group will often keep the other gender group out, so that, as Jacobs (1989) found, even though women move into men's occupations, they generally move out of these occupations soon thereafter. Epstein (1970), Kanter (1977) and Bradford, Sar-

gent and Sprague (1975) have all pointed to male "gatekeeping" behavior in keeping women out of male occupations; Hartmann (1976) and Milkman (1987) have provided numerous historical examples of men keeping women out of men's jobs. And, MacKinnon (1979) has documented the role that sexual harassment of women plays in keeping women out of male occupations.

Men are motivated to keep women out of their occupations because they fear that if women entered they would lower the earnings of the job by accepting lower wage rates or, if paid the same as men, threaten men's gender identity, including their sense of superiority and power over women. Interestingly, women may also be motivated to keep men out of their occupations in order to minimize the number of male rivals for promotion. Although having more men in an occupation might raise its pay and prestige, having more men might also make it more difficult for women to rise to the top within their occupations. For example, in many women's professions (teaching, nursing, librarianship), even though women predominate, the few men in the occupation often obtain the managerial positions.

Women rarely choose to enter a male-typed occupation because they fear not only sexual harassment but also a possible threat to their own gender identity, a diminution of their perceived femininity, self image, and possibly their prospects for marriage. When these negative sanctions disappear, as for example during wartime, women more readily enter male occupations. Women may also be reluctant to enter certain male occupations because of a male occupational culture that makes it difficult for women to feel comfortable and have "friends" at the workplace. (See Hacker, 1981). Men may be reluctant to enter women's occupations because they feel uncomfortable in female work settings (or "cultures") or because they fear ridicule by their friends and family.

Once the gender designation of occupations has been determined, employers have little incentive to change them. As Arrow (1973) has pointed out, once firms have made a personnel investment in workers it becomes costly to fire them (or cause them to quit) in order to bring in workers of a different race or gender. The race or gender earnings differential required to make it cost-effective to *change* the gender or race composition of a work force is even larger than the one that might lead to a hiring of the cheaper labor to begin with.

Moreover, given the operation of internal labor markets, it is unlikely that a manager would ever recognize that he or she had made an error in assigning workers to appropriately race-gender-typed occupations. If productivity adheres to the job and not to the person, a minority or woman hired onto a ladder with low productivity jobs would have a difficult time conveying to the employer that he or she should be moved to a job ladder with a different race-gender designation. For example, potential managerial talent among women hired into clerical ladders or minority men hired into operative ladders might never be recognized by managers.<sup>28</sup>

## How and why do occupations change their gender designation ?

We have already noted that occupations rarely change their gender designation. When they do change it is because the occupation's relative attractiveness to white men has changed.

In teaching during the nineteenth century (Tyack and Strober, 1981) and banktelling in the post-WW II period (Strober and Arnold, 1987a), and secretarial work in the railroad industry during the 1970s (Strober and Gallagher, 1992), white men decreased their representation because the occupations' attractiveness to white men declined relative to the attractiveness of other occupations. In the case of teaching and banktelling, the departure of white men, and/or their failure to increase their representation in occupations that were growing made room for white women. In their turn, white women, behind white men on the labor queue and excluded from the occupations higher in attractiveness to white men, then succeeded white men in teaching and banktelling. In the case of secretaries on the railroad, the occupation was not growing; indeed employment in all parts of the railroad industry was shrinking.

In the case of teaching, the occupation became less attractive to men in urban areas in part because they had so many new alternative opportunities in a growing commerce sector. But also, within teaching, the occupation became less attractive as schools were bureaucratized and teachers lost autonomy (Tyack and Strober, 1981). In rural areas, men, who were primarily farmers but taught school in the winter, ceased to be teachers when states insisted that they attend summer institutes to maintain their skills and when states began to lengthen the school term.

In banktelling, after World War II men who might have returned to banktelling or entered it, instead took advantage of the G.I. bill and obtained a college degree, which provided a much quicker route to management than the old route through telling. Once telling was no longer the route to a management position, the percentage of men in telling fell still further. A similar process took place in secretarial work on the railroads in the 1970s. As the industry began to decline, the historically high wages that railroads paid their clerical workforce began to decline relative to other wages. In addition, railroads began to hire managers with college degrees, thus shutting off clerical work as a route to a management position.

Occasionally, although seemingly less frequently, occupations tip from female dominated to male dominated. Two instances of this are white male obstetricians supplanting white female midwives (Ehrenreich and English, 1973); and white male cotton weavers in the late nineteenth century replacing white women cotton weavers (Baker, 1964). In both of these cases, increases in the relative attractiveness of the occupations (including increases in earnings) appear to have motivated the movement of white men.

A current example of an occupation in the process of changing its gender composition is that of assembly operatives in maquiladoras (world market factories) in Ciudad Juarez, Mexico. Women comprised 80% of such workers in 1980. The Mexican economic crisis, with its concomitant contraction of national employment and expansion of the foreign-owned maquila industry, precipitated an increase in the relative attractiveness of maquila occupations to men. As a result, men were increasingly hired into assembly operations: by 1987, the occupation was integrated, with women comprising only 57% of maquila workers (Catanzarite and Strober, forthcoming). Whether the occupation ultimately becomes male dominated remains to be seen.

As occupations shift from one gender designation to another there are important "tipping" points. Once an occupation becomes significantly male (or female), the composition shift accelerates, the occupation quickly tips, and fairly soon thereafter the occupation becomes overwhelmingly male (or female).<sup>29</sup> Once it is clear that an occupation has become significantly male, men actively prevent women from entering and women become reluctant to apply. By the same token, once it is clear that an occupation is significantly female, it will be shunned by men. In other words, the expectation that occupations will not be mixed but will be either male or female helps bring about the fulfillment of that expectation.

If one wished to use the theory to predict which occupations would be likely to change their gender designation in the near future, one would look to see which occupations are declining in relative attractiveness to white men. The occupation of physicians is likely to become increasingly female in the near future; it may "tip" and become primarily a female occupation. This would occur, not because of affirmative action or solely because of a fairer medical school admissions process, but because regulation has reduced physicians' autonomy and the possibility of making a very large income by practicing medicine. In this case, those white men who might have entered medicine in an earlier generation would be likely to take MBA degrees or otherwise enter more lucrative business careers. (See Strober 1992).

## **What happens to the relative pay and status of occupations when they change their gender designations**

Let us deal with those cases where an occupation shifts from primarily male to primarily female. As already indicated, the fall in the relative attractiveness of an occupation begins *before* the gender shift takes place. Indeed, it is the fall in relative attractiveness that produces the gender shift as men either leave the occupation or fail to keep up their share of the occupation as it grows. But, in addition, as the occupation becomes increasingly female, its relative pay and status decline still further. We have demonstrated this phenomenon empirically in the case of banktellers in the postwar period (Strober and Arnold 1987a).

As time passes and an occupation becomes solidly female, employers may lower its relative wage, or fail to increase it as fast. When an occupation is male, it fits into the male wage structure of the firm and is competitive with wages for men in similar jobs in the local labor market. However, we may hypothesize that, once an occupation becomes female, employers lower its wage rate because the original wage rate, which was set in comparison to existing male wages, is too high in comparison to the wages for other female jobs in the firm and in the local labor market. Moreover, many employers see no reason to pay women the same kind of "family wage" they might have been paying to men.

## Possible effects of equal opportunity legislation and affirmative action

During the mid-1960s, the climate of gender and race relations in the United States began to change on a number of fronts. In the employment arena, Congress passed the Equal Pay Act of 1963, and Title VII of the Civil Rights Act of 1964. In addition, the President issued several Executive Orders mandating affirmative action in employment of women and minorities by Federal contractors.

These new laws and orders and the lawsuits stemming from them may have moved employers somewhat further along the path of occupational integration by raising the costs of continuing to give preference to white men. Yet even after the mid-sixties, many employees, customers, friends, neighbors and colleagues continued to put pressure on employers to operate in the old way, if less openly and blatantly.

After the mid 1960s, employers had a new balancing act to perform. The legislation and executive orders made it potentially costly to continue to operate a queue ordered by race and gender. Yet the norms of gender and racial hierarchies remained strong enough that violating them was also costly. And employers' assumptions about the potential productivity of different groups of workers had not changed much.

In fact, despite some of the well-publicized lawsuits, in general Title VII was not vigorously enforced and the penalties under the executive orders were so severe that they were almost never used. Also, despite the changing norms about race and gender, the general societal concurrence regarding the appropriateness of reserving the best jobs for white men did not change very much.

What may have most prevented the status quo from changing, however, was the Title VII requirement (as well as the Equal Pay Act requirement) that women and minority men doing the same work as white men get the same pay for that

work. Prior to the mid-sixties, in making employment decisions, employers balanced the perception that women and minority men are less productive and less stable workers than are white men and the perception that there are considerable costs to violating norms of gender and race power relations against the lower wages they could pay to women and minority men. By the mid-sixties, the norms had changed somewhat, and the new laws, executive orders and potential lawsuits had increased the costs of discriminating. But the potential economic advantage to the employer of hiring women and minorities had been substantially reduced as a result of the provisions of the legislation requiring non-discrimination in wages: women and minority men could no longer legally be paid less than white men in the same job.

In some cases, individual women and minority men attained occupations that were attractive to white men. But often when they did in any significant numbers, the occupation began to resegregate. In the words of Carter and Carter, (1981) women got tickets to ride after the gravy train had left the station; we suspect that the same has been true for minority men.

We do not think that the legislation and executive orders of the sixties and seventies have significantly altered the dynamics of gender segregation in occupations. Further, any potential effects of those policy changes have been weakened by the lax enforcement of the 1980s and early 1990s, as well as by the recent Supreme Court decisions with respect to employment discrimination and affirmative action.

## **What is likely to happen in the future to the system of gender segregation?**

The system of gender segregation in the labor market is a reflection of the ideology and practice of gender power relations in the society at large and in the family. If the system is to change, it will likely do so in conjunction with change in the society as a whole. There are a number of signs of the beginning of a breakdown in the old system of gender norms in which women ceded power to men in return for economic support. If this breakdown continues, it may be that the system of occupational segregation will be significantly changed. But it is not at all clear that the breakdown will continue.

The old system of gender relations no longer provides economic support for most women. Not only is there a high rate of divorce and insecurity regarding child support payments, but even if women are in an "intact" marriage, the chances are better than 50 percent that a portion of their family income will come from the woman's own earnings. The time of the family wage (only a reality for the upper and middle classes even during its heyday) appears to have vanished.

There have also been profound changes in our thinking and our laws about a wife's sexual accessibility to her husband and her duty to bear his children. The history of women's increasing control of her own fertility predates the 1960s introduction of the Pill (Degler, 1980). Yet the Pill, combined with abortion on demand, has come to symbolize women's freedom to determine when, and if, and how many children she will bear. Husbands may still have access to their wives' bodies (except in those states that have come to recognize the concept of marital rape), but at the time of this writing, husbands no longer have the power to determine how many children their wives will bear. However, the Supreme Court ruling in *Planned Parenthood of Southeastern Pennsylvania vs. Casey*, limited the rights of women under the age of 18 to have an abortion without parental permission.

Nor are women any longer the exclusive caretakers of children. The increasing labor force participation of mothers with very young children (the rates are over fifty percent even for married mothers with infants under the age of one), the development of child care centers and family day care homes, and the availability of safe substitutes for breast milk have combined to create a situation where young children in our society are increasingly reared by their mothers for only part of the day.

### **The role of the State**

The State has played a major role in the past twenty-five years in changing the terms on which men and women negotiate their private lives. Walby (1986) sees the State as mediating between the forces of capitalism and patriarchy. No doubt some of the legal and legislative changes that have come about, for example the abolition of "protective" labor legislation for women have been in response to employers' needs for female labor. But the State has also been involved in mediating between the interests of those women and men who wished to see principles of the normative gender hierarchy remain intact and those who wished to see them weakened.

The notion that women may expect support from men came unraveled as one state after another adopted no-fault divorce laws and judges demonstrated a general disinclination to award any substantial spousal support payments for long periods of time. Although the vast majority of women, and especially those who have been out of the labor force for long periods of childrearing, are unable to support themselves at the level they attained while married, the law now sees all divorced women as capable of self-support after just a few years of spousal support to finance "retraining."

With respect to assisting mothers in collecting child support from childrens' fathers, the legislative and judicial machinery were silent for a long time. But recently, several states and the federal government have begun to intervene on the side

of mothers, in large part in an effort to reduce payments that otherwise have to be paid from welfare funds (Corbett, 1986). We note, however, that poor women are unlikely to benefit substantially from this if the fathers of their children are also indigent.

Issues regarding control of women's fertility have been at the forefront of debate in all branches and at all levels of government. Women currently have a fundamental legal right to seek an abortion, as affirmed recently by the Supreme Court. However, funding from the State is not guaranteed even if a woman is otherwise eligible for State funding for medical treatment. Moreover, Utah, Louisiana and the territory of Guam have already passed measures criminalizing almost all abortions, which will serve to test the scope of legal restrictions on abortion in the aftermath of the Supreme Court's review of the Pennsylvania case.

In addition, judicial and legislative issues have been raised about women contracting their bodies to bear children for others, and their legal rights with respect to these children. These critical issues regarding women's control of their fertility are in contention at present.

On the childcare front, the federal government and state governments have been beseeched to become involved. Currently, it appears likely that in the near future the federal government will provide additional financial assistance to families for childcare.

The State has also mediated gender power relations on work place issues. The Equal Pay Act, the gender provisions of Title VII of the Civil Rights Act, the various executive orders requiring affirmative action by government contractors, and even Title IX provisions applying to educational institutions, can all be seen as assisting women who are now expected either to support themselves or to contribute to their family's support. However, much as there remains controversy and uncertainty with regard to the State's role in reproductive issues and child care, so too, the State continues to be ambivalent about increasing women's power at the workplace. The enforcement procedures for Title VII have always been underfunded and the Reagan and Bush administrations have been desultory in requiring affirmative action for government contractors; the Supreme Court has acted to limit Affirmative Action and damages under discrimination lawsuits. Further, the recent Senate Hearings in which Anita Hill's sexual harassment complaints against Supreme Court nominee Clarence Thomas were downplayed illustrate the difficulty of getting a sexual harassment complaint to be taken seriously and the extremely tenuous public stance on harassment.

If we view gender power relations as a tapestry, we can think of the breakdown of several of its principles as an unraveling of some of the tapestry's threads. Using this metaphor, the question facing us is whether the unraveling of the tapestry is

likely to continue or whether, as has happened in the past, new knots will be tied in the tapestry, thus maintaining its integrity.

There are several developments on the current scene that could serve to prevent any further unraveling of gender power relations. An increase in power on the part of fundamentalists, elimination of abortion on demand, or increased popularity of arguments that call for a return to full-time attention to children by their mothers, all could serve as modern-day knot-tiers for the tapestry of gender power relations.

It seems likely that the State, as it responds to pressure groups and mediates claims of fairness, will continue to be the arena in which the gender hierarchy will be most successfully challenged. Those wishing to weaken occupational segregation will probably do best to battle gender power relations in the political domain, by appealing to the unfairness of the recently revised bargains between men and women, by assuring that conservative forces do not retie knots in the unraveling tapestry and by pushing for further changes in the workplace rules for deter mining occupational assignments and earnings. A weakening of occupational segregation, both by gender and by race, will serve to increase not only labor market equity, but also efficiency. A decline in occupational segregation will lead to a fuller realization and utilization of the full economic potential of workers, thereby increasing the strength of the national economy.

## References

- Akerlof, George A. 1984. An Economic Theorist's Book of Tales. Cambridge: Cambridge University Press.
- Arrow, Kenneth. 1973. "The Theory of Discrimination." In Labor Markets, edited by Orley Ashenfelter and Albert Rees, Princeton: Princeton University Press.
- Baker, Elizabeth. 1964. Technology and Woman's Work. New York: Columbia University Press.
- Becker, Gary. 1985. "Human Capital, Effort and the Sexual Division of Labor." *Journal of Labor Economics*, 3, part 2, :S33-S58.
- \_\_\_\_\_. 1957. The Economics of Discrimination. Chicago: University of Chicago Press.
- Blau, Francine D. and Andrea Beller. 1988. "Trends in Earnings Differentials by Gender, 1971-1981." *Industrial and Labor Relations Review*, 41 (4) :513- 529.
- \_\_\_\_\_. 1977. Equal Pay in the Office. Lexington: D.C. Heath.
- Bonacich, Edna. 1972. "A Theory of Ethnic Antagonism: The Split Labor Market," *American Sociological Review* 37, :547-559.
- Bradford, David L., Sargent, Alice G., and Sprague, Melinda S. 1975. "Executive Man and Woman: The Issue of Sexuality." In *Bringing Women Into Management*, edited by Francine E. Gordon and Myra H. Strober. New York: McGraw-Hill.
- Carter, Michael J. and Susan Boslego Carter. 1981. "Women's Recent Progress in the Professions or, Women Get a Ticket to Ride After the Gravy Train Has Left the Station." *Feminist Studies* 7:476-504.
- Catanzarite, Lisa M. 1990. "Job Characteristics and Occupational Segregation by Gender and Race/Ethnicity," Ph.D. dissertation, Department of Sociology, Stanford University, Stanford, California.
- \_\_\_\_\_. and Myra H. Strober. 1988. "Occupational Attractiveness and Race-Gender Segregation, 1960-1980," paper presented at the 262 Annual Meetings of the American Sociological Association, Atlanta, Georgia.
- \_\_\_\_\_. Forthcoming. "Gender Recompositions of the Maquiladora Workforce in Ciudad Juarez." *Industrial Relations*.
- Cohn, Samuel. 1985. The Process of Occupational Sex-Typing: The Feminization of Clerical Labor in Great Britain. Philadelphia: Temple University Press.

- Corbett, T. 1986. "Child Support Assurance: Wisconsin Demonstration." *Focus*, 9(1) :1-5.
- Degler, Carl. 1980. *At Odds: Women and the Family in America From the Revolution to the Present*. New York: Oxford University Press.
- Duncan, Otis Dudley and Beverly Duncan. 1955. "A Methodological Analysis of Segregation Indices." *American Sociological Review* 20, :210-217.
- Ehrenreich, Barbara and English, Deirdre. 1973. *Witches, Midwives and Nurses: A History of Woman Healers*, Old Westbury, New York: The Feminist Press.
- England, Paula, George Farkas, Barbara Stanek Kilbourne, and Thomas Dou. 1988. "Explaining Occupational Sex Segregation and Wages: Findings From a Model With Fixed Effects." *American Sociological Review*, 53L :544-558.
- Epstein, Cynthia F. 1970. *Woman's Place: Options and Limits in Professional Careers*. Berkeley: University of California Press.
- Filer, Randall K. 1986. "The Role of Personality and Tastes in Determining Occupational Structure." *Industrial and Labor Relations Review* 39:412-424.
- Hacker, Sally. 1981. "The Culture of Engineering: Woman, Workplace, and Machine." *Women's Studies International Quarterly* 4, (3) :341-353.
- Hartmann, Heidi. 1976. "Capitalism, Patriarchy and Job Segregation by Sex." In : *Women and the Workplace: The Implications of Occupational Segregation*, edited by Martha Blaxall and Barbara Reagan. Chicago: University of Chicago Press.
- Hodge, Robert W. and Patricia Hodge. 1965. "Occupational Assimilation as a Competitive Process." *American Journal of Sociology* 71(3), :249-264.
- Jacobs, Jerry. 1989. *Revolving Door: Sex Segregation and Women's Careers*. Stanford: Stanford University Press.
- Jencks, Christopher, Lauri Perman and Lee Rainwater. 1988. "What is a Good Job? A New Measure of Labor Market Success." *American Journal of Sociology* 93 (6):1322-1347.
- Kanter, Rosabeth M. 1977. *Men and Women of the Corporation*. New York: Basic Books.
- King, Mary C. 1992. "Occupational Segregation by Race and Sex, 1940-88," *Monthly Labor Review* 115 (4):30-36.
- MacKinnon, Catherine. 1978. *Sexual Harassment of Working Women*. New Haven: Yale University Press.

Malveaux, Julianne. 1982. "Recent Trends in Occupational Segregation by Race and Sex." Paper presented to the Committee on Women's Employment, National Academy of Sciences, Washington, D.C.

Milkman, Ruth. 1987. *Gender at Work*. Urbana, Ill.: University of Illinois Press.

Mincer, Jacob and Solomon Polacheck. 1974. "Family Investments in Human Capital: Earnings of Women." *Journal of Political Economy* 82, (March/April Part II), s76-s108.

Phelps, Edmund S. 1982. "The Statistical Theory of Racism and Sexism,". *American Economic Review* 62:659-666.

Polacheck, Solomon William. 1987. "Occupational Segregation and the Gender Wage Gap." *Population Research and Policy Review*, 6:47-67.

\_\_\_\_\_. 1978. "Sex Differences in College Major." *Industrial and Labor Relations Review* 31 (4):498-508.

Reskin, Barbara F. and Heidi I. Hartmann. 1986. *Women's Work, Men's Work: Sex Segregation on the Job*. Washington, D.C.: National Academy Press.

\_\_\_\_\_. and Patricia A. Roos. 1990. *Gender Queues, Gender Queues: Explaining Women's Inroads Into Male Occupations*. Philadelphia: Temple University Press.

Spitz, Janet. 1989. "Productivity and Wage Relations in Economic Theory and Labor Markets," Thesis Summary, Graduate School of Business, Stanford University.

Strober, Myra H., and Best, Laura. 1979. "The Female/Male Salary Differential in Teaching: Some Lessons from San Francisco, 1879." *Economic Inquiry, Journal of Western Economic Association*.

\_\_\_\_\_. and Tyack, David. 1980. "Why Women Teach While Men Manage: A Report on Research in Progress. *Signs: Journal of Women in Culture and Society*, Spring.

\_\_\_\_\_. 1982. "The MBA Degree: Same Passport to Success for Women and Men?" In *Women in the Workplace*, edited by Phyllis Wallace. Boston: Auburn House.

\_\_\_\_\_. 1984. "Toward a General Theory of Occupational Sex Segregation: The Case of Public School Teaching." In *Sex Segregation in the Workplace: Trends, Explanations, Remedies*, edited by Barbara Reskin. Washington, D.C.: National Academy Press.

\_\_\_\_\_. and Lanford, Audri G. 1986. "The Percentage of Women in Public School Teaching: A Cross-Section Analysis, 1850-1880." *Signs: Journal of Women in Culture and Society*, Spring.

\_\_\_\_\_. and Carolyn L. Arnold. 1987a. "The Dynamics of Occupational Segregation Among

Bank Tellers." In *Gender in the Workplace*, edited by Claire Brown and Joseph A. Peckman. Washington, D.C.: The Brookings Institution.

\_\_\_\_ and Carolyn L. Arnold. 1987b. "Integrated Circuits/Segregated Labor: Women in Three Computer-Related Occupations." In *Computer Chips and Paper Clips: Technology and Women's Employment*. Volumne III, edited by Heidi Hartmann, Robert Kraut and Louise Tilly. Washington, D.C.: National Academy of Sciences Press.

\_\_\_\_ 1988. "The Processes of Occupational Segregation: Relative Attractiveness and Patriarchy." Paper presented at the Annual Meetings of the American Education Research Association, New Orleans, April 5-9, 1988 and at the International Conference on Private Woman-Public Work, Haifa Israel, June 19-24, 1988.

\_\_\_\_ and Lisa M. Catanzarite. 1989. "An Unequal Access Theory of Occupational Race-Gender Segregation." Paper presented to International Sociological Research Committee 28 on Social Stratification, Stanford, California. August 5-7.

\_\_\_\_ 1992. "The Relative Attractiveness Theory of Gender Segregation: The Case of Physicians." Proceedings of the Annual Meetings of the Industrial and Labor Relations Research Association.

\_\_\_\_ and Teresa Gallagher. 1992. "Abandoned Tracks: Gender and Clerical Work in the Railroad Industry, 1930-87." Unpublished manuscript.

\_\_\_\_ Forthcoming. The Dynamics of Occupational Segregation.

Treiman, Donald, J. and Hartmann, Heidi I. 1981. *Women, Work and Wages: Equal Pay for Jobs of Equal Value*. Washington, D.C.: National Academy Press.

Tyack, David and Myra H. Strober. 1981. "Jobs and Gender: A History of the Structuring of Educational Employment by Sex." In *Educational Policy and Management: Sex Differentials*, edited by Patricia Schmuck and W.W. Charters. New York: Academic Press.

Walby, Sylvia. 1986. *Patriarchy at Work*. Minneapolis: University of Minnesota Press.

## Notes

\*An earlier version of this paper, "Race-Gender Segregation in Occupations: Notes Toward an Unequal Access Theory," was presented at the 1989 Summer Meeting of the International Sociological Association's Research Committee on Social Stratification. While that paper dealt with race-gender segregation, the discussion here focuses chiefly on gender. Both the original paper and this one are based in part on an extensive research project funded by the Russell Sage Foundation.

1. Occupational segregation by race is also prominent, as is segregation by race and gender combined, what we have termed race-gender (or gender-race) segregation (see Catanzarite and Strober 1988; Strober and Catanzarite 1989; Catanzarite, 1990).
2. For example, in 1980, about half of all employed women were in occupations that were at least 80 percent male (Reskin and Hartmann, 1986). For black men and women, these proportions were somewhat lower (Malveaux, 1982). The degree of occupational segregation is often measured by the index of segregation, also called the index of occupational dissimilarity (Duncan and Duncan, 1955), which ranges from 0, indicating complete integration, to 100, indicating complete segregation. Looking at gender segregation by race, King (1992) found that the index of segregation by gender, calculated across the most detailed occupational categories available in the Current Population Survey for 1988, was 56.7 for white women and men and 56.8 for black women and men.
3. In 1970, women who worked full-time, year-round, earned approximately 60 percent of the earnings of men who worked full-time year-round. Based on an analysis of 499 detailed occupational categories, Treiman and Hartmann (1981) concluded that about 35 to 40 percent of this earnings differential was the result of occupational segregation. (The other 60 to 65 percent came from the fact that within occupations men tend to earn more than women, in part because of gender segregation within occupations, gender segregation by firms and job segregation within firms). Both Blau and Beller (1988) using data from the Current Population Surveys for 1971 and 1981 and England et al. (1988) using data from a pooled cross-section time-series of the National Longitudinal Survey (NLS), found that, holding constant human capital variables (and in the case of the NLS data skill demands and working conditions as well) both women and men who were employed in women's occupations had an earnings decrement.
4. For example, in a study of graduates of the Stanford MBA class of 1974, Strober (1982) found that although the mean salaries for women and men were the same at the time they graduated, four years later (in 1978), the salary parity had eroded. Occupational segregation, or the fact that women were not in the highest paying fields, was an important factor in the 1978 male/female earnings differential.
5. The metaphor should be seen as heuristic; particularly the constructs of a single labor queue and a single occupation queue are oversimplifications.
6. In part, their willingness to work at a lower wage rate is a result of their being excluded from a broad range of occupations, which makes their opportunity costs lower.
7. Of course, in existing occupations, it is possible that employers or existing workers may not wish to "mix" women and men. Here we discuss the gender-typing of new occupations. Forces in existing occupations are discussed further on.
8. Human capital theorists think that part of the reason for women's absence from white men's occupations is that women's utility functions are different from those of men so that women seek a different type of education from that which men seek; even if women do happen to obtain the same type of education as men, their different utility functions will still lead them to seek different jobs from those that men seek. Filer (1986) has suggested that men seek jobs that will maximize income over their life-time (constrained only by their own talents and ambition), but that women seek jobs that provide pleasant physical surroundings

and also allow them to fulfill social objectives. Further, according to Becker (1985), women may be more interested than men in finding jobs that allow them to "conserve" some of their energy for the housework that faces them when they return home, Polacheck (1978; 1987) also argues that since women do not expect to be in the labor force for as many years as men they do not for (male) occupations that require a long and expensive training period or exact a high penalty for intermittent labor force behavior.

9. The human capital theory interprets women's lower productivity as stemming from women's own choices: (a) the choice to obtain less education of the type that is highly productive (for example scientific or technical education) (Polacheck, 1978); (b) the choice to obtain jobs that have low levels of on-the-job training (but high initial starting salaries); and (c) the choice to take out periods of time from labor force participation in order to raise children (Mincer and Polacheck, 1974)
10. The distinction between statistical discrimination and "taste" discrimination breaks down when in fact there is no true productivity differential by race or gender. If an employer persists in believing that there is a true productivity differential despite evidence to the contrary, the employer exhibits "taste" discrimination (perhaps dressed up with productivity rhetoric).
11. Arrow (1973) has argued that profit-maximizing employers will not hire women or minority workers to work together with men or majority workers in occupation X at a given workplace because it is unprofitable to have to pay men or majority workers a premium to compensate them for their distaste. Nor does Arrow expect employers who were already employing men or majority workers in occupation X fire them in order to employ women or minority workers in X at lower earnings; in Arrow's terms, employers have a "personnel investment" in their workers that they wish to continue. Rather, his model predicts that new firms, without personnel investments, will employ women and minorities in X. Thus he expects that men and women and minority and majority workers will be found in the same occupation, but in separate firms. (And he expects that across the market as a whole the occupation will have wage differentials by gender and race.) In some occupations, segregation does operate in this way (See, for example, Blau, 1977, on clerical workers). But, in many occupations, segregation is so extreme that virtually no women or minorities are employed in any firms.
12. For example, suppose that men's wage rate is 1.0 and women's is .6, a M/F earnings differential of 1.67. The M/F earnings differential would increase to 2.2 if women were hired at .5 and men's earnings were raised to 1.1. (For each male employee to receive the additional .1 by which women's earnings were cut, women would have to be hired in a number equal to the number of men employed.) In fact, if no women or minorities are employed in a given occupation, it is difficult to know exactly what is meant by the notion that the existing wage differentials by gender and race are not large enough. Presumably, what is meant to be compared to the actual or prospective wage for white men is the "going wage" in the market for minorities and women doing "similar" work. If segregation is extreme, however, there will be no similar work being done by women and minorities. If there is similar work, the employer will be unsuccessful in hiring women or minorities into the occupation in question at lower wages, since such workers would probably prefer to remain in their similar, higher paying job.
13. Arrow (1973) had some of these in mind when he noted the probable nonconvexity of the employer indifference curves for two types of workers.
14. The starting point for this definition is from Hartmann, who defined patriarchy as, "a set of social relations which has a material base and in which there are hierarchical relations between men, and solidarity among them, which enable them to control women" (1976: 138, fn 1). We also draw from the dictionary definition of sexism, as "the economic exploitation and social domination of members of one sex by the other, specifically of women by men."
15. Of course, physical protection is necessitated in part because of the potential for violence and rape by other men. But, male violence against women exists in the family as well. In practice, male family members do

not always protect women physically; their license over women within the family contributes to, and conceals, domestic violence.

16. There may be some instances where women do benefit from gender power relations in society at large. Minor benefits may be derived by some women when men open doors for them or relinquish their seats to them. More substantial benefits may come from being exempt from military draft and/or military battle, although such exemption also means that women are not eligible for veterans' benefits or for higher-paying positions within the military.
17. Included in the monetary return on human capital is job security or involuntary unemployment (as in the case of seasonal work).
18. It may be that one aspect of attractiveness is the likelihood of an occupation becoming female, since occupations that become female may suffer a decline in earnings and hence a decline on the return to incumbents' human capital investments.
19. Catanzarite and Strober (1988) used census data to construct a measure of the monetary attractiveness of occupations to white men. The measure essentially represented the ratio of average actual earnings of white male workers in an occupation to earnings that would be predicted based on the mean human capital of white male incumbents.
20. In the empirical work developing their measure of job desirability, Jencks, Perman and Rainwater (1988) find that the weightings attached to different job characteristics do not vary significantly by race or gender. On the other hand, Reskin and Roos (1990) argues that women may weight job attributes differently from men. Conceptually, however, it would be erroneous to use indicators of attractiveness based on data for subordinate group workers, since we argue that white men's assessments of attractiveness determine the order of the occupation queue. White men assess the benefits that an occupation provides not to all workers, but to white male workers. (White men often are located in the best industries, jobs or firms. For example, it would be misleading for white male waiters, who are disproportionately located in higher-class restaurants, to evaluate the benefits that coffee shop waitresses receive, in assessing occupational attractiveness.) Similarly, the use of data based only on white male workers avoids the problem that the wages of subordinate groups may be "contaminated" by individual-level discrimination.
21. For a formal treatment of the argument that maintaining one's "reputation" is an important factor in economic decision making, see Akerlof, (1984).
22. If labor costs are high relative to total costs and the occupation involved represents a large fraction of the firm's employees, (that is, in Samuel Cohn's (1985) terminology, when firms are poorly buffered from labor costs), the relative attractiveness of the occupation is likely to be low, and the cost of not taking advantage of cheap female or minority labor may be overwhelming, overshadowing the potential cost of violating gender or racial norms. In such cases employers are likely to prefer subordinate group workers. However, where firms can afford to pay only low wages, and hence, relative attractiveness is low, the cost of violating race and gender norms will also tend to be low, as few white men would be interested in the occupation. In exceptional cases, however, employers in poorly buffered firms may seek to hire subordinate group members over the protest of the dominant group. Such was the casewith the shift of postal clerks from a male to female job in England (Cohn, 1985).
23. This implies that the employer leaves the gender designation of the occupation to the preferences of white men. In fact, however, the employer to some extent "prejudges" the decisions of white men by the particular way in which the employer designs the job and its remunerative attributes, including its position in the internal labor market.
24. The following discussion draws heavily on Strober and Arnold (1987a) and Strober (1988).

25. In this case, employers will eventually reduce the relative attractiveness of the occupation, since lower levels of attractiveness are needed to continue to attract subordinate group workers, who have few alternatives.
26. The outcome of such contention will depend on the relative attractiveness of the occupation as well as on the employer's profit position and need to save on labor costs as compared to perceptions of white men's desire to claim the job and hence, the perceived costs of not according preference to white male workers.
27. The statistically expected percentage of women (and men) in an occupation was calculated by taking the percentage of women (or men) in the labor force and then adding an upper and lower range to that percentage equal to one-half the percentage. For example, in 1920, when women were 20 percent of the work force, an occupation was considered integrated if it had 10 to 30% women, male dominated if it had less than 19% women, and female dominated if it had over 30% women.
28. Spitz (1989) argues that conservatism and inertia play a role in the stability of occupational race-gender designations. She suggests that given the basic conservative nature of work organizations managers believe that if they do something unconventional they will generally be punished for it. Thus, only those few managers willing to forego their own promotions are likely to make hiring or promotion decisions that are gender or race deviant. Moreover, Spitz argues that managers have only a finite amount of attention and that once a decision is made it is generally left alone because re-thinking it is costly.
29. These shifts are analogous to "white flight" in neighborhood segregation.
30. From 1970 to 1989, the percentage of women physicians increased from 7.5 percent to 16.4 percent. For the year 1989-90 women were 28 percent of residents, 34 percent of MD graduates and 38 percent of the entering class of medical students. However, women were not distributed evenly across the medical specialties. Of the 36 specialties listed by the AMA for 1989, the top seven account for 63 percent of male physicians, but 75 percent of women physicians. Two specialties, pediatrics and child psychiatry have a particularly high representation of women, 37.6 percent and 33.6 percent respectively. Moreover women are slightly more than 50 percent of all residents in these two specialties. On the other hand, in the highly paid surgical specialties, with the exception of obstetrics/gynecology, women are virtually absent (Strober 1992).

ISSN 0173-6574